testo 460

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Short manual testo 460

① Protection cap: Park position
② Photo transistor
③ Display
④ Control keys
⑤ Battery compartment (on rear)

en

Basic settings

Instrument off > press and hold ⏻ 2s > select with ▲ (▲), confirm with Mode (↵):

Unit of rotational speed: **rpm, rps**, Auto off function: **OFF**, **ON**

Switching the instrument on

Press ⏻.

Switching the display light on (for 10s)

Instrument on > press ⏻

Measuring

› Press and hold ▲.

Select display mode

Instrument on > select with Mode:

Hold: Readings are held > **Max**: Maximum values > **Min**: Minimum values > **NO.**: Set the number of blades.

Switching the instrument off:

Instrument on >press and hold ⏻ 2s.

Safety and the environment

About this document

› Please read this documentation through carefully and familiarise yourself with the product before putting it to use. Keep this document to hand so that you can refer to it when necessary. Hand this documentation on to any subsequent users of the product.

› Pay particular attention to information emphasised by the following symbols:

With the signal word **Warning!**:
Warns against hazards which could result in serious physical injury if the precautionary measures indicated are not taken.

Important.

Avoid personal injury/damage to equipment

› Only operate the measuring instrument properly, for its intended purpose and within the parameters specified in the technical data. Do not use force.

› Never store the product together with solvents, acids or other aggressive substances.

› Only carry out the maintenance and repair work that is described in the documentation. Follow the prescribed steps when doing so. Use only OEM spare parts from Testo.

Protecting the environment

› Take faulty rechargeable batteries as well as spent batteries to the collection points provided for them.

› Send the product back to Testo at the end of its useful life. We will ensure that it is disposed of in an environmentally friendly manner.

Specifications

Functions and use

The testo 460 is a rotational speed measuring instrument. It is normally used to measure rotational speed, e.g. of impellers, drums and spindles.

Technical data

Measurement data

- Sensor:
  Optical LED
- Parameters:
  rpm, rps
- Measuring ranges:
  100...30000 rpm, 1.7...500.0 rps
- Resolutions:
  0.1 rpm (100.0...999.9 rpm),
  0.1 rps (1.7...17.0 rps),
  1 rpm (1000...30000 rpm)
  1 rps (17.0...500.0 rps)
- Accuracies
  (Nominal temperatue 22 °C, ±1 Digit):
  ±0.02 % of reading
- Measuring rate:
  0.5 s

Further instrument data

- Protection class: IP40
- Ambient conditions:
  0...50 °C, 32...122 °F
- Storage/transport conditions:
  -40...70 °C, -40...158 °F
- Voltage supply:
  2x 1.5 V type AAA
- Battery life:
  20 h (without display light)
- Dimensions:
  119x46x25 mm (inc. protection cap)
- Weight: 85 g (inc. batteries and protection cap)

Directives, standards and tests

- EC Directive: 89/336/EEC

Warranty

- Duration: 2 years
- Warranty conditions: see guarantee card

Product description

At a glance

① Protection cap: Park position
② Photo transistor
③ Display
④ Control keys
⑤ Battery compartment (on rear)

First steps

➢ Inserting batteries:

1 To open the battery compartment, push the battery cover down.

2 Insert batteries (2x 1.5 V type AAA). Observe the polarity!

3 To close the battery compartment, push the battery cover back on.

➢ Basic settings (configuration mode):

Adjustable functions

- Unit of rotational speed: **rpm, rps**
- Auto off function: **OFF**, **ON** (instrument switches off automatically if no key is pressed for 10 minutes)

1 When switching the instrument on, press and hold ⏻ until ▲ and ↵ appear on the display (configuration mode).
- The adjustable function is displayed. The current setting flashes.

2 Press ▲ (▲) several times until the desired setting flashes.

3 Press Mode (↵) to confirm the input.

4 Repeat steps **2** and **3** for all functions.
- The instrument changes to measuring mode.

Using the product

For reliable measurements it is necessary to use reflective markers. To apply the reflective marker, wait until the object to be measured has come to a standstill.

The ideal distance to the measurement object is between 10 and 40 cm. During the measurement, always aim at the reflective marker from an angle of approx.30°. This avoids multiple reflections from the surface.

If no reflective marker can be attached, it must be checked whether the reflective properties of a reflective point on the measurement object are sufficient for rpm measurement. In this case, aim at the measurement object from the vertical, and check whether a value is displayed. If the measurement object displays several reflections per revolution, (e.g. reflective ventilator with 5 vanes), the number of the impulses per revolution (e.g. number of ventilator vanes) must be entered into the instrument (see below) in order to obtain correct rpm measurements.

➢ Switching the instrument on:

› Press ⏻.

- Measuring mode is opened.

➢ Switching the display light on:

✓ The instrument is switched on.

› Press ⏻.

- The display light goes out automatically if no key is pressed for 10 seconds.

➢ Changing the display view/setting the number of blades:

As an alternative to entering the impulses per revolution, the setting **NO.1** can be selected and the rpm calculated manually from the measurement value (measurement value divided by impulse/number of vanes)

Adjustable views/setting the number of blades

- **Hold**: Readings are held.
- **Max**: Maximum values since the start of the last measurement.
- **Min**: Minimum values since the start of the last measurement.
- **NO.**: Set the number of blades. Change the value with ▲.

› Press Mode several times until the desired view appears.

➢ Measuring

Warning! Danger of injury from rotating parts!

› Keep to the safe distances and comply with the protective measures stipulated by the manufacturer.

› Press and hold .

- rpm or rps flashes in the display as soon as useful measuring signals are available. The light spot marks the centre of the measuring surface.
- When measurement has been completed (release), the instrument changes to the Hold display view and the reading is held.

➢ Switching the instrument off:

› Press and hold until the display goes out.

Maintaining the product

➢ Changing batteries:

1. To open the battery compartment, push the battery cover down.
2. Remove used batteries and insert new batteries (2x 1.5 V type AAA). Observe the polarity!
3. To close the battery compartment, push the battery cover back on.

➢ Cleaning the housing:

› Clean the housing with a moist cloth (soap suds) if it is dirty. Do not use aggressive cleaning agents or solvents!

Tips and assistance

Questions and answers

Question	Possible causes/solutions
Hi or **Lo**	· Readings outside the measuring range (too high, too low): Keep to the permitted measuring range.
	· Residual capacity <10 min: Change batteries.

If we could not answer your question, please contact your dealer or Testo Customer Service. Contact details can be found on the guarantee card or on the Internet at: www.testo.com

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